DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 3, 7-11, 14-15, 17-19, 28-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 3, 7-11, 14-15, 17-19, 28-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per the interview dated April 23, 2010, the examiner points out several 112 issues with claim 1, and proposes amendment to clarify the scope of claim 1 and address the 112 issues. Since claims 2-15, 17-20, 28-29 are dependent claims of claim 1, the 112 issues with claim 1 imply 112 issues with several of the pending claims – as a matter of antecedent basis, clarity and/or new matter.

The rejections that follow are based on the best interpretations of the claims - in accordance with scope discussed during the interview summary dated April 23, 2010.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 7-11, 14, 18-19, 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Balakrishnan et al. (US 5,952,942). Claims 8-9, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balakrishnan et al..

2. As per claim 1, Balakrishnan teaches a text-entry system (FIGs. 1-2) based on trigger sequences comprising

1) a plurality of keys (FIG. 1),

2) a plurality of printable symbols, said plurality of printable symbols comprising pre-conversion symbols (symbols on keypad, FIG. 1), post-conversion symbols (text in display 14, FIG. 1) and non-conversion symbols (number, text that are not converted in display 14, FIG. 1),

such that at least one of said plurality of keys is assigned more than one

of said pre-conversion symbols (FIG. 1) and

such that at least one fixed sequence of keystrokes (2255 (col. 4, lines 19-21)) corresponds to more than one sequence of pre-conversion symbols (BALK BALL CALK CALL (col. 5, lines 3-5)),

each of said post-conversion symbols being set in a correspondence to a pre-conversion symbol (e.g. pre-conversion symbols CALL correspond to post-conversion symbols CALL),

3) a plurality of symbol-input-end symbols each of which can be generated by a keystroke on at least one of said plurality of keys, the at least one of said plurality of keys including at least one key of said plurality of keys having either a pre-conversion symbol or a non-conversion symbol assigned to it, wherein said each symbol-input-end symbol is a non-printable symbol (col. 6, lines 43-50),

4) a display (14, FIG. 1) to display said plurality of printable symbols,

5) a first mechanism to display said plurality of printable symbols in response to keystrokes (13, 17 - FIG. 1), and

6) a second mechanism to recognize, upon generation of a symbol-input-end symbol of said plurality of said symbol-input-end-symbols, triggered sequences of keystrokes of a set of trigger sequences of keystrokes and thereby trigger conversion of m pre-conversion symbol displayed on said display to n post-conversion symbol (symbol-input-end is inputted in step 197, FIG. 5 to set a last word - hence triggering conversion of pre-conversion sequence in the display area 17 to post-conversion sequence in display area –5; 2255 followed by key 19 followed by a key that is neither

key 19 or key 18 is an element of a set of trigger sequences of keystrokes (see 182-184-190-192-195-197, FIG. 5); step 193 FIG. 5 suggests other elements of the set of trigger sequences of keystrokes),

wherein m and n are integers, $m \geq 1$, $n \geq 1$, and $m \geq n$,

wherein each of said trigger sequences of keystrokes has two parts:

a first part comprising keystrokes that correspond to said n post-conversion symbols (all keystrokes prior to step 197, FIG. 5); and

a second part including said keystroke (not Key 19 (step 192) nor Key 18 (step 195) – FIG. 5), wherein said keystroke converts said sequence of keystrokes in said each of said trigger sequences of keystrokes into said n post-conversion symbols and at the same time display said n post-conversion symbols and a pre-conversion symbol corresponding to said keystroke (step 197, FIG. 5), wherein said pre-conversion symbol corresponding to said keystroke is itself not converted at the same time (step 197, FIG. 5; col. 6, lines 43-48).

3. As per claim 7, Balakrishnan teaches converting a sequence of pre-conversion symbols to a post conversion symbol upon recognition of a trigger sequence by the second mechanism (see rejection of claim 1 above) – hence a third mechanism for such conversion.

4. As per claim 8, Balakrishnan does not teach the third mechanism being physically remote from the first mechanism. It was however recognized in the art that implementing two mechanisms separately is no more than an obvious variant of implementing two mechanisms together – hence the third mechanism being physically

remote from the first mechanism being no more than an obvious variant of the implementation disclosed by Balakrishnan.

5. As per claim 9, Balakrishnan teaches the conversion being performed based on a context comprising other input symbols (31, 33, 34 – FIG. 2; col. 4, line 48-col. 5, line 5).

6. As per claim 10, Balakrishnan teaches a predictive text mechanism operating to select pre-conversion symbols for display based on a context comprising other input symbols (31, 33, 34 – FIG. 2; col. 4, line 48-col. 5, line 5).

7. As per claim 11, Balakrishnan teaches a Next key (key 19, FIG. 1) for incrementing symbols in an ordered list containing more than one element, the Next key being characterized in that a keystroke on the Next Key does not generate a symbol-input-end-symbol (col. 6, lines 30-38).

8. As per claim 14, Balakrishnan teaches a first Next key such that a keystroke on the first Next key advances the pre-conversion symbols in an order and does not generate a symbol-input-end-symbol (col. 6, lines 30-38). In addition, it was known in the art to incorporate a separate Next key such that a keystroke on the separate Next key advances non-conversion symbols in an order and does not generate a symbol-input-end-symbol in order to select a desired non-conversion symbol. It would have been obvious to one of ordinary skill in the art to incorporate a second Next key that is used for advancing non-conversion symbols and does not generate a symbol-input-end-symbol in order to select a desired non-conversion symbol.

9. As per claim 18, Balakrishnan teaches a word-based predictive mechanism (col.

4, line 17-col. 5, line 5).

10. As per claim 19, Balakrishnan teaches a word-completion mechanism (col. 4, line 17-col. 5, line 5).

11. As per claims 28-29, see the rejections of claim 1 above.

Response to Arguments

12. Applicant's arguments with respect to the elected claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANH Q. NGUYEN whose telephone number is (571)272-4154. The examiner can normally be reached on M-F (9:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TARIQ HAFIZ can be reached on (571)272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TANH Q. NGUYEN/
Primary Examiner, Art Unit 2182

TQN: May 10, 2010